AMENDMENTS TO THE SPECIFICATION

Docket No.: H0498.70179US00

Please replace the abstract at page 24 with the following amended abstract:

The present invention is directed to a A method of patterning materials, such as proteins, on a contoured surface by depositing them onto protrusions on the a surface, and to a cell containment device that may be constructed by this method, are provided. In one embodiment, the present invention is directed to a The method of may involve selectively depositing a material on a substrate including a contoured surface including a protrusions and a recesses. The method includes By applying a first fluid to the contoured surface of the substrate and allowing the first fluid to distribute across only a portion of the contoured surface, a material may be deposited on such that the first fluid contacts the protrusions and not the recesses, or on the recesses and not the protrusions. Such a method may be used to selectively pattern cells or other materials on substrates. The method also includes allowing a first material to deposit on the substrate where the substrate is in contact with the first fluid. Optionally, this method may further include applying a second fluid to the contoured surface of the substrate, allowing the second fluid to distribute across a portion of the contoured surface such that the second fluid contacts the recess, and allowing a second material to deposit on the substrate where the substrate is in contact with the second fluid. Optionally, the method may still further include applying a third fluid to the contoured surface of the substrate, allowing the third fluid to distribute across a portion of the contoured surface, and allowing a third material with an affinity for one of the first material and the second material to deposit on the substrate only where the one of the first material and the second material is deposited. In one embodiment of this method the first material is a cytophobic material, the second material is a cytophilic material and the third material is a cell.

In another embodiment, the present invention is directed to a cell containment device, including a substrate having a contoured surface, a recess in the surface of the substrate, a cytophobic material connected to the surface of the substrate outside the recess and a cytophilic material connected to the recess.